

# Air Bear Simulation

## Air Bear Crew Handbook

U.S. Department of Transportation  
Federal Aviation Administration  
Mike Monroney Aeronautical Center

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## Air Bear Airport and Aircraft Simulation

**WHAT IS THE SIMULATION?** The Air Bear simulation is an interactive program for elementary students in grades 1 through 5. The objectives are to acquaint the students with aviation safety, aviation careers, principles of flight, importance of good communication skills and a good education. The program is presented by Air Bear, the mascot of FAA Aviation Education, and the Air Bear Crew, volunteers who assist Air Bear and the students throughout the simulation. The simulation is a complete flight experience with students fulfilling all positions from passenger to pilot. The primary purpose of the Air Bear Crew is to direct students in the performance of their assigned roles.

The simulation consists of three phases - introduction, visit to the airport and airplane trip. Students begin the simulation seated in a holding area in front of a VCR and monitor. The Narrator introduces Air Bear and the members of the Air Bear Crew. The purpose of the activity is explained and the students are told what will happen during the rest of the exercise. "Wilbur Wright" is introduced to the group. "Wilbur" talks briefly about the early development of flight and how he and Orville made the first powered flight.

When Wilbur is finished, the simulation parts are passed out to the students. There are 25 career parts to be played by the students. Those that do not receive career parts are given Passenger slips. This is done through random selection except for the Pilot, Co-pilot and two Air Traffic Controllers. Since these are speaking parts, teachers are asked to select students who have good reading skills and are not bashful to play these parts. The career parts are printed on white paper. The passengers' slips are printed on green paper and represent money, which will be used later in the simulation.

The students are shown a videotape - "Exploring the World of Aviation with Air Bear." The video shows Air Bear at the airport and aboard an airplane. It describes various aviation careers as Air Bear passes through the various stops at the airport and boards the aircraft. The students are asked to watch the videotape for the job they will have during the simulation and for the information they need to do their assignment.

After viewing the video, the passengers, Air Bear and one Crew Member leave the room. While they are out of the room, they receive a briefing on what will happen at the "airport" and aboard the "aircraft."

The remaining students are placed at the various stations and given explanations and instructions. Air Bear Crew Members assist them to prepare for their roles. Each student is given a T-shirt, which has the name of the part they are playing printed on it. When everyone is in place, the simulation begins.

Air Bear leads the student's back into the "airport." The narrator presents a running commentary as Air Bear and the students purchase tickets using their "money," pass through security, check their baggage, give tickets to the Customer Service Representative and board the "aircraft." The flight attendants help them find a seat. When everyone is aboard the "aircraft," the Narrator explains what happens to the aircraft on the tarmac, what happens aboard the aircraft and what happens between the Pilots and the Air Traffic Controllers.

The Narrator explains the activities that are happening on the tarmac. The Aircraft Refuelers refuel the "aircraft". The FAA Safety Inspector walks around the aircraft to make sure it is safe to fly. Mechanics repair any broken equipment. The Line Persons direct the aircraft safely away from the gate on departure and to the gate on arrival. As students complete their assigned tasks, they take a seat on the "aircraft."

Aboard the "aircraft," the students Flight Attendants give a demonstration of the safety features of the aircraft - seat belts, oxygen mask, floatation devices and passenger safety information card as the Narrator adds the commentary.

When the "aircraft" is ready to depart, the Pilot and Co-pilot request permission from the Air Traffic Controller. Students read the prepared dialogue from a script.

While the "aircraft" is airborne, the narrator discusses elements of flight and what happens while the aircraft is flying. The Flight Attendants pass out "refreshments."

When the "aircraft" is ready to land, the Pilot and Co-Pilot request permission from the Air Traffic Controller. Again this is done by reading from the prepared script.

After the "aircraft" lands, the Flight Attendants help the Passengers exit the "aircraft." Passengers are directed to the baggage claim area to retrieve their luggage.

All students again gather in front of the television monitor for a wrap-up by the Narrator.

As the students are dismissed from class, they shake hands with Air Bear and members of the Air Bear Crew.

## **What Does the Air Bear Crew Do?**

It takes a minimum of six people to effectively run a simulation. Seven or eight is ideal with "Wilbur" assuming one of the other Crew roles in addition to "Wilbur."

Each Crew Member is in charge of one group of students during the simulation.

**AIR BEAR:** Person dressed as Air Bear who greets the students as they arrive, joins them as they visit the "airport" and take an "airplane" ride and greets them as they leave. Air Bear DOES NOT talk.

**NARRATOR:** This is the Team Leader. Conducts the Air Bear Simulation by telling the students what happens at the "airport" and aboard the "aircraft" and is responsible for the Ticket Agents, Security Agents, Baggage Handlers, Customer Service Representatives and the FAA Safety Inspector.

**WILBUR WRIGHT (Optional):** Person dressed as Wilbur Wright who explains the history of flight and how he and Orville Wright made the first powered Aircraft flight on December 19, 1903 at Kitty Hawk, North Carolina.

**AIR BEAR GUARD:** Person who stays with Air Bear except when Air Bear is aboard the "aircraft." The guard explains to the students what will happen during the simulation while they are outside waiting to begin the exercise.

**FLIGHT ATTENDANTS:** Stays with the Flight Attendants, explaining what they will do and when they will do it. Makes sure students understand how to demonstrate the safety equipment and what to do when prompted by the narrator.

**PILOT & CO-PILOT:** Stays with the Pilot and Co-pilot, explaining what they are to do and assisting them with their script.

AIR TRAFFIC CONTROLLERS: Stays with the Air Traffic Controllers, explaining what they are to do and assisting them with their script.

GROUND CREW: Assists the ground crew - Aircraft Refuelers, Mechanics and Line Persons - by telling them what they are to do and when to do it.

"PROMPTING" IS OFTEN NECESSARY !!! THE AIR BEAR CREW WILL ALSO BE ASKED TO ANSWER QUESTIONS AND HELP MAINTAIN ORDER

## RESPONSIBILITIES OF CREW MEMBERS

AIR BEAR: Air Bear DOES NOT talk. Air Bear is a Crew Member who is dressed in a flight suit and Air Bear costume consisting of Head and Paws. Tennis shoes or bear feet house shoes can be worn. Air Bear is the center of attention for most of the simulation. Students follow Air Bear through the \*airport" stations and into the "aircraft." On board the "aircraft," Air Bear is a passenger. At the appropriate time, Air Bear complains of a broken seat so the Mechanics will have something to repair. At the end of the simulation, Air Bear exits the "aircraft" and waits for the students in front of the VCR and monitor. AS the students are dismissed, Air Bear shakes hands with each student and presents them with a small gift if available.

NARRATOR: The Narrator is the Team Leader. The Narrator is responsible for the set-up of the "airport" and the "aircraft." When the "airport " and "aircraft" are ready, the Narrator notifies the teachers that the simulation is ready to begin. The Narrator introduces Air Bear and the Air Bear Crew. The Narrator explains what will happen during the exercise, asks Crew Members to pass out simulation roles and starts the videotape. After the videotape is completed, the Narrator asks the Passengers and Air Bear to leave the room. The Narrator then places all of the simulation actors with their respective Crew member. The Narrator is responsible for briefing and positioning the Ticket Agents, Security Agents, Baggage Handlers, Customer Service Representatives and FAA Safety Inspector on what they will be doing during the simulation. When all Passengers are aboard the \*aircraft", the Narrator gives a running commentary on what happens on the tarmac before an airplane departs, what happens on the inside of the cabin before takeoff and what type of conversation occurs between the Pilot, Co-pilot and Air Traffic Controllers. The Narrator explains what happens during the flight and upon landing. ALL AIR BEAR CREW MEMBERS TAKE THEIR CUES FROM THE NARRATOR. At the end of the `simulation, the Narrator gives a wrap-up of the simulation and dismisses the students back to their teachers.



WILBUR WRIGHT: This is an *OPTIONAL* Crew Member. Wilbur is dressed in clothes resembling those worn in the early 1900's complete with bowler hat. Wilbur explains how he and his brother Orville became interested in powered flight and how they built and flew the Wright Flyer. Wilbur gives details about his life and the early days of aviation. It is up to the individual playing Wilbur as to how elaborate they want to be. Also, the information provided to students depends on their age and how much time is available.

**AIR BEAR GUARD:** This Crew Member is responsible for the safety of Air Bear during the simulation. Since the Air Bear costume head limits the Crew Member's vision, the Guard helps lead Air Bear when necessary. The students always like to shake hands or hug Air Bear. The Guard makes sure Air Bear is not hit, poked or otherwise injured. The Guard is also responsible for briefing the Passengers while they are waiting to go to the "airport." The Guard should ask how many students have been to an airport, how many have taken an airplane ride and explain what will happen as they go to the "airport." They first will buy a ticket using their green Passenger slip, which represents money. They will then go through security where they and their luggage will be checked to make sure they are not carrying anything dangerous. Explain some of the items that are forbidden on aircraft - guns, knives, explosives, etc. As the students enter the "airport," the guard watches to make sure no harm comes to Air Bear. At the end of the simulation, the Guard again stays close to Air Bear to help protect the Bear as necessary.

FLIGHT ATTENDANTS: The Crew Member assisting the Flight Attendant will brief them on their duties. The Crew Member will also make sure the Flight Attendant respond to the cues of the Narrator. The Crew Member will have four Flight Attendants - one for the seat belt, one for the oxygen mask, one for the life vest in a bag and one for the life vest demonstration. Brief each Flight Attendant on how to demonstrate their piece of equipment when asked to do so by the Narrator. Each Flight Attendant will have a Passenger Safety Information Card. The Crew Member will show them how to present the card to the passengers. The Flight Attendants will also have a tray, which will be used to serve "refreshments." REMEMBER, the Flight Attendants will take their cue from the Narrator.

PILOT & CO-PILOT: The Crew Member in charge of the Pilot and Co-pilot will brief them on their duties during the simulation. The Pilot and Co-pilot are responsible for flying the aircraft. They are also responsible for requesting permission to move the aircraft. This is done by reading a prepared script. The Crew Member should discuss the script with the students and let them practice reading the phrases. The Crew Member will prompt the students at the proper time and assist them reading the script if necessary.

**AIR TRAFFIC CONTROLLERS:** The Air Traffic Controllers are responsible for directing the aircraft prior to takeoff, during the flight, during landing and taxiing to the terminal. The Crew Member in charge of the Air Traffic Controllers will brief them on their responsibilities. The Controllers will respond to the requests of the Pilot and Co-pilot by reading from a prepared script. The Crew Member should preview the script with the Controllers, prompt them when to read the correct phrases and assist them in reading if necessary.

GROUND CREW: The Ground Crew consists of Mechanics, Line Persons and Aircraft Refuelers. The Crew Member will brief the Ground Crew on their roles during the simulation and take cues from the Narrator for actions from specific Ground Crew members. The Crew Member should explain the props being used and how they will be used. The Mechanics will have a screwdriver and wrench to fix Air Bear's seat. The Line Persons will have two sticks, which will be used to direct the "aircraft" away from and back to the terminal. The Aircraft Refueler will use a dryer outlet hose to refuel the "aircraft."

## EQUIPMENT NEEDED

Air ` Bear Costume - Flight Suit and Bear Head & Paws  
Shirts for Identification with printed student parts  
Cockpit Simulator  
Radar Screen - Large Compass - may be drawn on board  
Speaker System - bullhorn will work  
Four Trays - cafeteria trays or pieces of poster board  
Seat Belt - obtained from airlines  
Oxygen Mask - obtained from airlines  
Life Vest in Bag-obtained from airlines  
Life Vest-obtained from airlines  
Passenger Safety Information Cards - obtained from airlines  
Screwdriver - workshop cast off  
Wrench - workshop cast off  
Refueling Hose - use flexible dryer outlet hose  
Line Person Batons - sticks painted red or orange  
Security Batons - sticks painted black  
Security X-Ray Machine - cardboard box with cutout  
Air Bear Videotape - ` Exploring the World of Aviation with Air Bear"

Tickets - printed with name of school and destination  
Simulation Parts - printed on white and green paper  
(Samples Attached)

One chair for each student  
Six tables - any size will do  
VCR and Monitor

## **Air Bear Career Parts**

Pilot

Co-Pi lot

Air Traffic Controller (2)

Flight Attendant (4)

Ticket Agent (2)

Security Agent (4)

Baggage Handler (2)

Customer Service Representative (2)

FAA Safety Inspector

Mechanic (2)

Aircraft Refueler (2)

Line Person (2)

Passenger (all remaining students)

NUMBER OF STUOENTS PLAYING THE PARTS MAY BE  
REDUCED IF GROUP IS SMALL



Career and passenger roles should be cut into strips using scissors or a paper cutter. They are mixed together and randomly passed out to the students except for the Pilot, Co-pilot, and two Air Traffic Controllers. The teachers select these four speaking parts, but care should be taken not to make it obvious to the students while the roles are being distributed.

**Pilot**

**Co-pilot**

**Ticket Agent**

**Ticket Agent**

**Security Agent**

**Security Agent**

**Security Agent**

**Security Agent**

**Aircraft Refueler**

**Aircraft Refueler**

**Baggage Handler**

**Baggage Handler**

**Mechanic**

**Mechanic**

**Customer Service Rep**

**Customer Service Rep**

**Air Traffic Controller**

**Air Traffic Controller**

**Flight Attendant**

**Flight Attendant**

**Flight Attendant**

**Flight Attendant**

**Line Person**

**Line Person**

**FAA Safety Inspector**

\$\$ Passenger \$\$

\$\$ Passenger \$\$

\$\$ Passenger \$\$

\$\$ Passenger \$\$

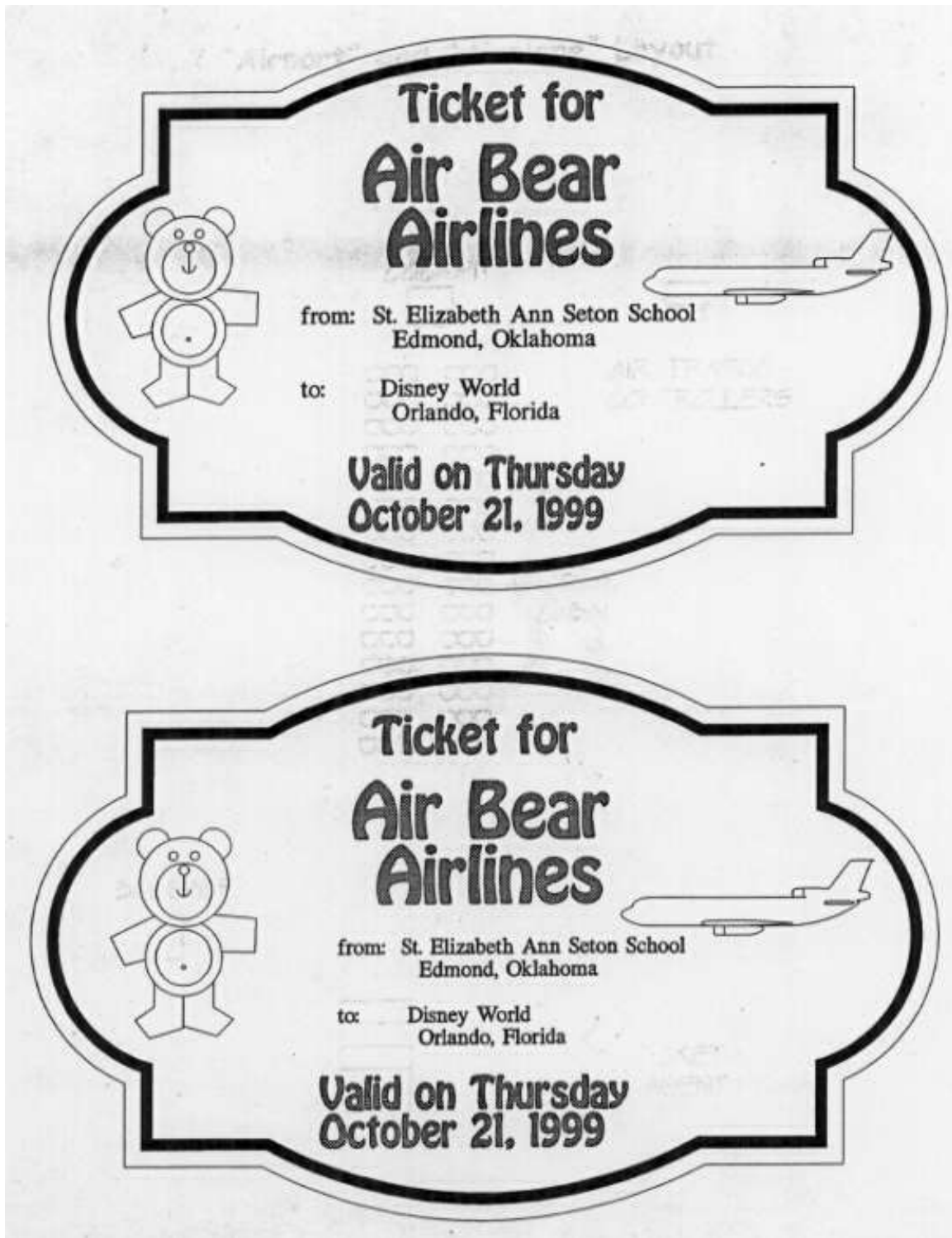
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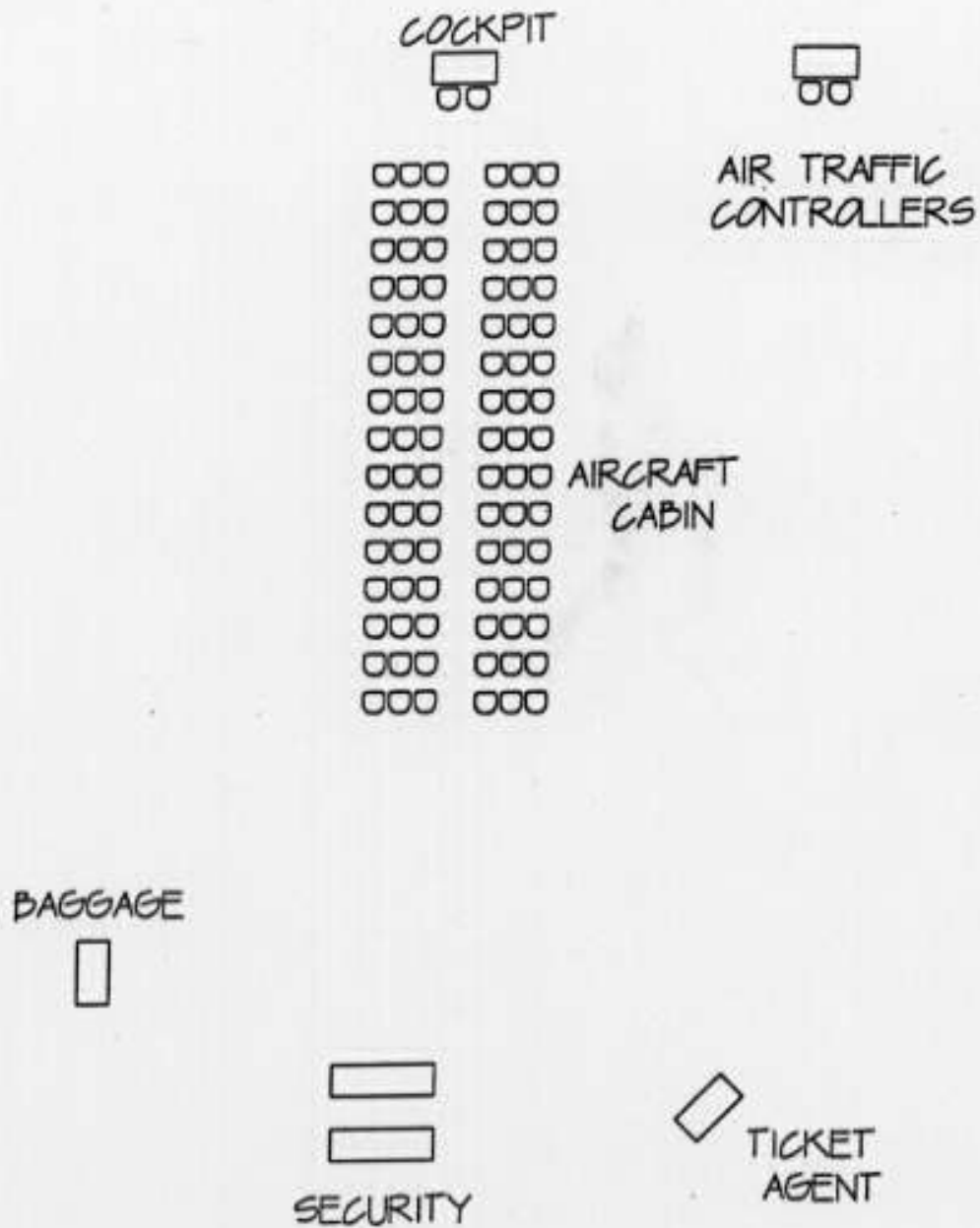
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# TICKET FOR AIR BEAR AIRLINES



## "Airport" and "Airplane" Layout



## **Air Bear Script**

### **For Pilots and Air Traffic Controllers**

PILOT: Will Rogers Ground Control - this is Air Bear One. Ready to taxi for takeoff.

ATC: Air Bear One - this is Ground Control. Taxi to Runway One Seven Left using Taxiway Bravo.

PILOT: Will Rogers Tower - this is Air Bear One. Ready for takeoff to Orlando.

ATC: Air Bear One - this is Will Rogers Tower. Cleared for takeoff. After departure, turn Left to One Three Five degrees and climb to 33,000 feet. Have a good flight.

PILOT: Orlando Approach Control - this is Air Bear One. We are at 33,000 feet ready for approach to Orlando.

ATC: Air Bear One - this is Orlando Approach Control. Descend to 6,000 feet. Contact Orlando Tower at 20 miles out.

PILOT: Orlando Tower - this is Air Bear One. We are 20 miles from Orlando at 6,000 feet.

ATC: Air Bear One - this is Orlando Tower. Turn right to One 'Six Zero degrees. Cleared to land on runway One Six Left. Contact Ground Control when you leave the runway.

PILOT: Orlando Ground Control - this is Air Bear One. We are clear of the active runway, ready to taxi to gate.

ATC: Air Bear One - this is Orlando Ground Control. Taxi to Gate Two Four via taxiway Charlie. Welcome to Orlando.



## **Air Bear Narrator Outline**

### **Introduction**

- Introduce yourself
- Explain the role of FAA - keeping the skies and aircraft safe
- Explain why the students are there - to do a simulated trip to the airport and airplane ride
- Introduce Air Bear Crew
- Introduce Air Bear
- Explain that each person will be playing a part in the simulation
- Pass out career parts to students-the crew does this
- Ask the students to watch the video - Exploring the World of Aviation with Air Bear-for the part they will play in the simulation
- After the video - dismiss all the PASSENGERS with Air Bear, Air Bear Guard and one or two teachers

### **Simulation**

- . Call for the Career Parts and place them with their Crew member
- . Have the students put on Career shirts
- . Crew member will explain what the students will be doing during the simulation
- Check with each station to make sure they are ready
- When all Career Parts are ready, ask Air Bear to bring the Passengers to the airport
- Once all Passengers are aboard the airplane, explain that they just did - bought a ticket, went through security, checked baggage and boarded the airplane and the Flight Attendants helped them find a seat
- Ask the Passengers to look out the window and they will see the fuel truck pull up to the aircraft and the Aircraft Refuelers will fill the airplane with aircraft fuel - ask the students where the fuel tank are on the airplane
- Ask the Refuelers to keep filling the aircraft
- Tell the students they may see someone walking around the aircraft - it could be the Pilot, Co-pilot or FAA Safety Inspector - today it is the FAA Safety Inspector

- Ask the inspector to walk around the airplane, check everything on the airplane to make sure it is safe to takeoff
- Ask the Inspector if he/she found anything broken on the aircraft - the Inspector will say NO -tell Passenger if something was broken the Mechanics would repair it
- Tell Passengers that since nothing is broken on the airplane we do not need to call the Mechanics
- Air Bear will get the attention of the Narrator - ask what wrong - the seat is broken - it will not recline and Air Bear will not be able to take a nap
- Ask Mechanic to repair Air Bear's seat
- Tell the Passengers they will receive a safety briefing from the Flight Attendants
- Have the first Flight Attendant demonstrate It while you explain
- Have second Flight Attendant demonstrate oxygen mask while you explain
- Have third Flight Attendant show the life vest is the package
- Have fourth Flight Attendant demonstrate how to wear the life vest .
- Have all four Flight Attendants show the Passenger Safety Information Card
- Tell the Passengers they normally do not get to hear the conversation between the Cockpit and the Tower - today is special - we will get to listen to the conversation
- Tell the Passengers we are on Air Bear Airlines and we are Flight Number
- One - this is how we identify our aircraft
- Tell the Passengers we are ready to back away from the terminal and taxi to the runway - but we must coordinate this with Air Traffic Control
- Pilot and Air Traffic Controller will read script
- Tell Passengers that the aircraft will back away from the terminal with the help of the Line Persons
- When we get to the end of the taxiway, Pilot will ask ATC if it clear for take off - use prepared script
- Use the Radar Screen - compass - to explain headings and how pilots navigate
- Explain what it feels like to take off, everything on the ground gets smaller and smaller

- Tell the Passengers that it will take three hours to fly to the destination so there are several things they can do - sleep, read, listen to music, look out the window
- After they have been flying for awhile the Flight Attendants will serve refreshments
- AS we get close to our destination, the Pilot will ask for permission to enter the airspace
- The Pilot will ask for clearance to land
- After landing, the Pilot will ask for clearance to taxi to terminal
- Explain the role of the Line Persons in helping to park the aircraft
- Tell Passengers to stay in their seats with seat belts fastened until the Pilot has turned off the seat belt sign
- Tell Passengers they depart the aircraft through the front left door with the first row going first and working towards the back of the aircraft Ask Passengers who checked baggage to stop at the baggage area to retrieve their baggage
- Ask everyone to please gather in front of the TV monitor

### **Wrap-Up**

- Explain what was done - all the stops at the airport and what happened aboard the aircraft
- Thank the school for inviting Air Bear and Crew to the school
- Tell students to greet Air Bear as they leave - if possible, Air Bear will give the students a pencil, balsa airplane, etc
- Ask teachers how they would like for the students to be dismissed